



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 08/090,808 | 06/04/98 | LILLY | K 805-3725 |

7M31/1001

FRANK A SMITH
GENERAL ELECTRIC COMPANY
ONE PLASTICS AVENUE
PITTSFIELD MA 01201

EXAMINER

BARRE-ORD, K

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 10/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/090,508

Applicant(s)
Lilly

Examiner
Katherine A. Bareford

Group Art Unit
1762



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) 14 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-13 and 15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2,3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1762

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-13 and 15, drawn to a method of coating, classified in class 427, subclass 510.

II. Claim 14, drawn to a product, classified in class 428, subclass ⁴/₂

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed could be made by another and materially different process, such as one where the texturing is done by a brushing device or some other device than a roll.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with F. Smith on July 22, 1998 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-13 and 15. Affirmation of this election must be made by applicant in replying to this Office action. Claim 14 is withdrawn

Art Unit: 1762

from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

5. The attempt to incorporate subject matter into this application by reference to 09/034,883 is improper because (1) applicant has not indicated that the case is commonly assigned. (2) applicant is apparently attempting to incorporate essential subject matter. Note that the compositions of claims 2 and 8 are not mentioned at all in the specification, and that the only support for these compositions appears to be in the referenced document. Furthermore, in the Examples at pages 9-10, discussion is made of materials such as FCS¹⁰⁰ and RX0726. However, the only discussion of what these materials are appears to be in 09/034,883. Applicant should clarify the specification to take into account these problems.

Claim Rejections - 35 USC § 112

6. Claims 1-13 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1762

(1) As discussed in the 'Specification' section above, it is confusing as to what applicant actually intends the invention to be based on the apparently incorporation of essential subject matter from 09/034,883 above.

(2) As to the claims, it is also unclear what is intended to actually be the coating composition. Pages 7-8 of the specification describe desired coating compositions, but a completely different, unmentioned composition is used in claims 2 and 8. It is unclear what compositions applicant actually desires to use for the coating composition. As to the examples, it is further unclear if they describe a 3rd, different set of coating compositions or one of the other compositions of the claims or specification, since no provision is made as to what materials are actually used.

(3) As to claim 15, it is unclear if the wording as to the discussion of delta RI on page 6 of the specification is actually referring to this material.

(4) As to the drawing, this drawing is confusing as to what is required by the claimed invention, because the only shown nip occurs after the coating occurs, not before as is apparently described in the specification.

7. Claims 1-13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1762

Claim 1, line 5, 'smooth, low friction' is vague and indefinite as to the precise smoothness and lack of friction required by the roller.

Claim 1, lines 8-9, it should be clarified that step (b) actually occurs after step (a).

Claim 1, lines 10-11, it should be clarified that step ^(c) ~~(b)~~ actually occurs after step (b).

Claim 2, lines 4 and 5, applicant should remove the '.' at the end of those lines.

Claim 7, line 5, 'smooth, low friction' is vague and indefinite as to the precise smoothness and lack of friction required by the roller.

Claim 7, lines 8, it should be clarified that step (b) actually occurs after step (a).

Claim 7, lines 9-10, it should be clarified that step ^(c) ~~(b)~~ actually occurs after step (b).

Claim 8, lines 4 and 5, applicant should remove the '.' at the end of those lines.

Claim 15, line 2, 'low stress' is vague and indefinite as to how little stress is needed to be low stress.

Claim 15, line 7, applicant needs to provide a positive recitation of actually applying the coating and to clarify that the textured side is actually formed by the first, low friction roller.

The other dependent claims do not cure the defects of the claims from which they depend.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 1762

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 4, 6-7, 10, 12-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al (US 5281371).

Tamura teaches a method of producing a coated thermoplastic film. Figure 1 and column 3, lines 35-65. A substrate film with a first and second surface is passed through a nip between a first and second rollers. Figure 1 and column 3, line 65 through column 4, line 22. The first surface can be covered by a smooth, low friction material. Column 3, lines 40-45, column 6, lines 20-45 and column 6, line 65 through column 7, line 10. The first roller texturizes the first surface of the substrate. Figure 1 and column 3, line 65 through column 4, line 22 (the contact of the roller with the resin gives a certain texture). The second roller is metallic. Column 3, lines 40-45 and column 11, lines 35-50. The second roller polishes the second surface of the substrate. Column 3, line 65 through column 4, line 22. A curable coating is applied to the first surface. Figure 1 and column 4, lines 20-40. The coating is cured to produce a smooth coating. Figure 1 and column 4, lines 20-40.

103 Claim 4: the smooth material can be polytetraflu^oroethylene. Column 6, line 65 through column 7, line 10.

Claim 6: the second roller can be chrome plated steel. Column 11, lines 35-50.

Claim 7: after curing, the coated film can be cut into a plurality of articles. Column 12, line 45 through column 13, line 15.

Art Unit: 1762

VB Claim 10: the smooth material can be polytetrafluoroethylene. Column 6, line 65 through column 7, line 10.

Claim 12: the second roller can be chrome plated steel. Column 11, lines 35-50.

Claim 13: the film has a birefringence of less than 25 nm. Column 12, lines 55-65.

Claim 15: Tamura teaches a method of producing a coated thermoplastic film. Figure 1 and column 3, lines 35-65. A substrate film with a first and second surface is passed through a nip between a first and second rollers. Figure 1 and column 3, line 65 through column 4, line 22. The first surface can be covered by a smooth, low friction material. Column 3, lines 40-45, column 6, lines 20-45 and column 6, line 65 through column 7, line 10. The first roller texturizes the first surface of the substrate. Figure 1 and column 3, line 65 through column 4, line 22 (the contact of the roller with the resin gives a certain texture). The second roller is metallic. Column 3, lines 40-45 and column 11, lines 35-50. The second roller polishes the second surface of the substrate. Column 3, line 65 through column 4, line 22. The first roller can have such low friction that some slippage may occur between the first roller and the substrate. Column 3, lines 40-45, column 6, lines 20-45 and column 6, line 65 through column 7, line 10. A low stress substrate is produced. Column 4, lines 1-22. A curable coating is applied to the first surface. Figure 1 and column 4, lines 20-40. The coating is cured to produce a smooth coating. Figure 1 and column 4, lines 20-40. The substrate and coating are selected to have a difference in the indices of refraction of less than 0.08. Column 5, lines 20-40.

Art Unit: 1762

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 5, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al (US 5281371).

Tamura teaches all the features of these claims, as discussed in the rejection above, except (1) that the substrate is a aromatic polycarbonate resin (claims 3 and 9) and (2) that the roller roughness of the first roller is less than 0.8 microns (claims 5 and 11). Tamura does teach that the substrate is polycarbonate resin. Column 3, lines 60-68.

However, it is the Examiner's position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tamura to use an aromatic polycarbonate resin as the substrate and to use a roller with the claimed Ra value with an expectation of similar results, because (1) Tamura teaches the use of polycarbonate resins in general, and would therefore expect similar results from a conventionally known form, aromatic polycarbonate and (2) Tamura teaches the use of fluorine resins on the roll, which conventionally forms smooth surfaces and because it would be desired to make the surface as smooth as possible to prevent damaging the formed sheet.

Art Unit: 1762

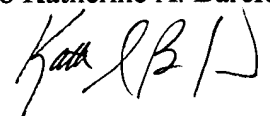
12. Claims ²1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura as applied to claims 1, 4, 6-7, 10, 12-13 and 15 above, and further in view of Tanaka et al (US 5631307).

Tamura teaches all the features of these claims except the precise coating composition. Tamura does teach that the coating is a photocurable resin with photopolymerizable oligomers, monomers and initiators. Column 4, lines 55-65. The oligomer can include epoxy acrylates and the monomers can include acrylate monomers. Column 4, lines 65 through column 5, line 20. The initiator can be present in a weight of less than 5% and the monomer/oligomers present in greater than 75 wt. percent. Column 12, lines 1-35.

Tanaka teaches that a conventional photopolymerizable materials can include acrylate compounds containing bromine and epoxy acrylate materials. Column 13, line 25 through column 14, line 40.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tamura to use brominated epoxy acrylate for the epoxy acrylate materials as suggested by Tanaka with an expectation of similar results, because Tamura teaches using epoxy acrylates in the photopolymerizable composition, and Tanaka teaches that conventional photopolymerizable compositions can contain bromine, leading to brominated epoxy acrylate.

13. Any inquiry concerning this communication should be directed to Katherine A. Bareford at telephone number (703) 308-0078.


KATHERINE A. BAREFORD
PRIMARY EXAMINER
GROUP 1100/200